


Engineer: Bruce Page	Date: 4/9/04	<div style="text-align: center;">  JPS Communications 5800 Departure Drive, Raleigh, NC 27616 </div>			
Drawn: Bruce Page	Date: 4/9/04				
Approved: Jack Curtis	Date: 4/9/04	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 7/7/06	Size: A	Dwg. #: 5961-271271-APP	Rev: B	Sheet: 1 Of 1

APPLIES TO: Ericsson-GE-M/A-Com MDX Mobile (16-Pin Option Cable)

RADIO MODIFICATIONS:

- The radio requires the 16-Pin Option Cable PMCD7Z (Ericsson P/N 19C851585P18).
- The front microphone must be connected to the radio in order to enable signals on the rear mounted option cable.

RADIO PROGRAMMING:

- Mobile radios should normally be programmed for low transmit power.

RADIO CONTROLS:

- Adjust the Volume Control until the yellow "SIGNAL" indicator on the associated DSP Module flashes with receive audio. Should be about in the mid-range (12 o'clock) position.

CABLING:

Standard ACU-1000 and ACU-T Interface cables are made up of a 2 foot TRP Radio Tray Interface cable and the appropriate 13-foot Extension cable.

ACU-1000 Interface Cable	JPS P/N 5961-291271	(5961-271271 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281271	(5961-271271 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271271	
Radio RF Connector Type	Female TNC	

DSP-1 JUMPERS:

JP1	Low Impedance *
JP2	Balanced *

DSP PROGRAMMING:

RX Level	3*	0dBm*
TX Level	6*	0dBm*
Squelch Type	VOX*	
COR Polarity	Active Low*	
High Frequency Equalizer	4*	Flat*
RX Audio Delay	2*	100 ms*
TX Audio Delay (Radio Type)	0*	No Delay*
Noise Reduction Value	0*	Off*
VOX/VMR Threshold	1*	Med1*
VOX/VMR Hang Time	3*	775 ms*
COR Inhibit After PTT	1*	100 ms*
All Others	As needed	

(* Indicates Default Value)

NOTES:

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B		7-7-06

16 PIN RECEPTACLE HOUSING
MOLEX 39-01-2160
(JPS P/N 0360-016000)
FEMALE TERMINALS MOLEX 39-00-0047
(JPS P/N 0847-000022)

Wiring diagram for the JPS P/N 0847-000022 radio, showing connections for P1 and P2 connectors.

P1 Connector (9 pins):

- 1: TXB
- 2: PTT
- 3: RXA
- 4: RXB
- 5: TXA
- 6: GND
- 7: ANA. GND
- 8: GND
- 9: GND

P2 Connector (16 pins):

- 1: GND
- 2: SPKR LOW
- 3: SPKR HIGH
- 4: EXT MIC HIGH
- 5: EXT PTT
- 6: MIC LOW
- 7: GND
- 8: GND
- 9: GND
- 10: GND
- 11: GND
- 12: GND
- 13: GND
- 14: GND
- 15: GND
- 16: GND

Components and Connections:

- C1 22uF:** Capacitor connected between P2 pin 4 (EXT MIC HIGH) and P2 pin 5 (EXT PTT).
- R4 68:** Resistor connected between P2 pin 6 (MIC LOW) and P2 pin 7 (GND).
- Wiring:**
 - P1 pin 1 (TXB) connects to P2 pin 2 (SPKR LOW).
 - P1 pin 2 (PTT) connects to P2 pin 5 (EXT PTT).
 - P1 pin 3 (RXA) connects to P2 pin 3 (SPKR HIGH).
 - P1 pin 4 (RXB) connects to P2 pin 4 (EXT MIC HIGH).
 - P1 pin 5 (TXA) connects to P2 pin 6 (MIC LOW).
 - P1 pin 6 (GND) connects to P2 pin 1 (GND).
 - P1 pin 7 (ANA. GND) connects to P2 pin 1 (GND).
 - P1 pin 8 (GND) connects to P2 pin 1 (GND).
 - P1 pin 9 (GND) connects to P2 pin 1 (GND).


PLUG VIEWED FROM

PLUG VIEWED FROM REAR

2 FEET

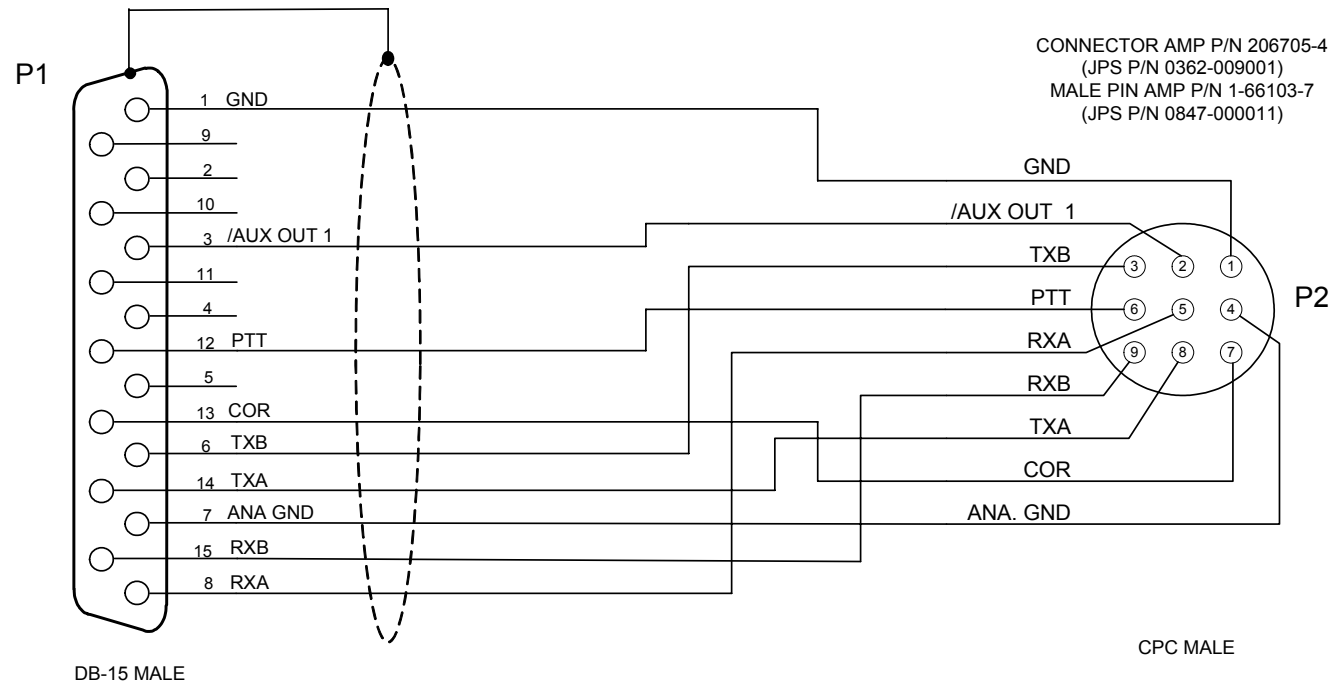
C1	JPS P/N 0321-220250
R4	JPS P/N 1820-680000
JU2	
JU4	

NOTE: SHIELD DRAIN CONNECTED TO P1 SHELL ONLY.

Designed By:	RBP			
Drawn By:	RBP	Title CABLE, CPC TO ERICSSON-GE MDX (16 PIN OPT CABLE)		
Checked By:	JAC	Size A	Document Number 5961-271271	Rev B
		Issued Date	APRIL 12, 2004	Sheet 1 of 1

PURCHASED PART

Rev	ECO	Date
A		



- NOTES: 1) USE BELDEN 9934 SHIELDED CABLE.
2) CONNECT SHIELD DRAIN TO SHELL OF P1 ONLY.
3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.
4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

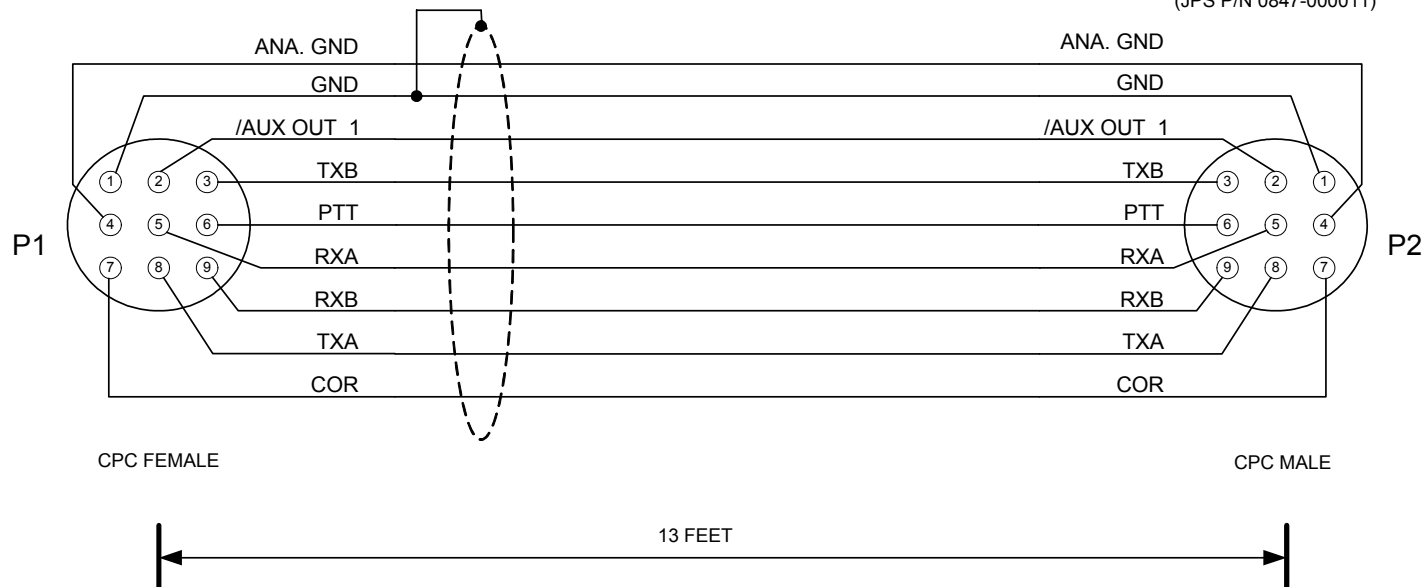
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-261002-00	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	

Rev	ECO	Date
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PURCHASED PART

CONNECTOR AMP P/N 206708-1
(JPS P/N 0362-005003)
FEMALE PIN AMP P/N 1-66105-8
(JPS P/N 0362-005002)

CONNECTOR AMP P/N 206705-4
(JPS P/N 0362-009001)
MALE PIN AMP P/N 1-66103-7
(JPS P/N 0847-000011)



- NOTES: 1) USE BELDEN 9934 SHIELDED CABLE.
2) CONNECT SHIELD DRAIN TO PIN 1 OF P1 ONLY.
3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.
4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

Designed By: JAC	Raytheon JPS Communications Raleigh, NC USA		
Drawn By: JAC	Title CABLE, ACU-T RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-281013-00	Rev A
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